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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,427	09/26/2003	Naokatsu Ikegami	OKI 383	5808
23995	7590	04/05/2005	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			HANLEY, JOHN C	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/671,427

**Applicant(s)**

IKEGAMI ET AL.

**Examiner**

John C. Hanley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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**DETAILED ACTION**

***Specification***

1. The amendment to the specification filed on March 24, 2005 has not been entered because the manner in making the amendment was not proper. It uses as a basis for amendment the original specification rather than the amendment of October 18, 2004 previously entered for the same paragraph of the specification. The subject matter intended to be added would have been objected to, had it been entered, because it does not particularly set forth the added material in the drawings and label it with a reference number.

***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first and second regions and the subject matter of claim 9 must be shown or the feature(s) canceled from the claim(s). Regarding claim 9, no conical or pyramidal stops are shown projecting from the mounting board. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ao (US-5828116) in view of Fujii et al (US-5313836) plus MacDonald (US-6170332).

5. Ao, Figure 3, shows an acceleration sensor having a mounting board 1, a sensor chip mounted on the top surface of the mounting board, the sensor chip including a weight 5 having a bottom surface which faces the mounting board, a frame 3, and a beam 8 which connects the weight to the frame. The sensor chip is bonded to the top surface of the mounting board by a bonding resin 24. The sensor chip does not cover an entire top surface of the mounting board. Further, the top surface of the mounting board is the same level over the entire region under the frame attachment area and the area under the weight. Ao lacks only a stop projecting from the top surface of the mounting board. However, Fujii et al teach to project a stopper 4 from the top surface of a mounting board, under the weight of a sensor, to prevent the sensor from

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traveling too far. MacDonald et al, in its discussion of Figure 2 at column 4, lines 45+, motivates one to provide overrange stops in a sensor structure similar to A0. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify A0 with a stop projecting from the top surface of the mounting board as shown in Fujii et al. One would have been motivated to do so by the teaching of MacDonald, which teaches to provide a stop in a structure similar to A0 to prevent the weight from moving too far and damaging itself.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over A0 (US-5828116) in view of Fujii et al (US-5313836) plus MacDonald (US-6170332) as applied to claims 5-7 above, and further in view of Shimada et al (US-5429736). The combination of references applied to claims 5-7 lack a pyramidal or conical stop projecting from the top surface of the mounting board. Shimada et al, Figures 10 and 11, make obvious use of a pyramidal or conical stop to one of ordinary skill in the art at the time of applicant's invention, to stop a sensing weight like that of A0 before it hits a mounting board.

7. Applicant's remarks have been read and considered, but are unpersuasive. Applicant argues the references individually instead of in the context of the combination. A0 clearly shows a mounting board having the same level across the regions for which the sensor is mounted and where the stop of Fujii et al and/or Shimada et al would be placed when taken in combination.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Hanley whose telephone number is 571-272-2195. The examiner can normally be reached on M-F 9AM-5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCH



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